

Excerpts from the NRC Supplemental EIS for Dewey-Burdock Environmental Justice

From the SEIS Executive Summary Environmental Justice

The percentage of minority populations living in affected block groups in the vicinity of the proposed Dewey-Burdock ISR Project site in Custer and Fall River Counties in South Dakota and Weston County in Wyoming does not significantly exceed the percentage of minority populations recorded at the state and county level and is well below the national level. Furthermore, the percentage of low-income populations living in affected census tracts in the vicinity of the proposed project site in Custer, Fall River, and Weston Counties does not significantly exceed the percentage of low-income populations recorded at the state or county level. Therefore, there will be no disproportionately high and adverse impacts to minority and low-income populations from the construction, operation, aquifer restoration, and decommissioning of the proposed Dewey-Burdock ISR facility.

The population closest to the proposed Dewey-Burdock ISR Project that could be impacted by environmental justice concerns is the Pine Ridge Indian Reservation located approximately 80 km [50 mi] east in Shannon County, South Dakota. Based on 2010 United States Census Bureau data, this reservation has both minority {greater than 95 percent Native American (Oglala Sioux Tribe)} and low-income populations. Environmental justice impacts to Native American tribes living in the vicinity of the proposed project are not expected to differ from those experienced by other populations. The proposed action has the potential to affect certain sites of religious and cultural significance to Native American tribes; however, the impacts to such sites are expected to be reduced through mitigation strategies developed through the National Historic Preservation Act Section 106 consultation process.

SEIS Section 4.12 Environmental Justice Impacts

As required by Title VI of the Civil Rights Act of 1964, federal agencies must consider whether their actions may cause disproportionately negative impacts on minority or low-income populations. Executive Order 12898 (59 FR 7629) (1994), "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires similar analysis.

In response to Executive Order 12898, the Commission issued a Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions (69 FR 52040). The Policy Statement explains that "The Commission is committed to the general goals set forth in Executive Order 12898, and strives to meet those goals as part of its NEPA review process."

In 1997, the CEQ provided the following guidance relevant to determining when an agency's actions may disproportionately affect certain populations:

Disproportionately High and Adverse Human Health Effects. Adverse health effects are measured in risks and rates that could result in latent cancer fatalities, as well as other fatal or nonfatal adverse impacts on human health. Adverse health effects may include bodily impairment, infirmity, illness, or death. Disproportionately high and adverse human health effects occur when the risk or rate of exposure to an environmental hazard for a minority or low-income population is significant (as defined by NEPA) and appreciably exceeds the risk or exposure rate for the general population or for another appropriate comparison group. (CEQ, 1997)

Disproportionately High and Adverse Environmental Effects. A disproportionately high environmental impact that is significant (as defined by NEPA) refers to an impact or risk of an impact on the natural or physical environment in a low-income or minority community that appreciably exceeds the environmental impact on the larger community.

Such effects may include ecological, cultural, human health, economic, or social impacts. An adverse environmental impact is an impact that is determined to be both harmful and significant (as defined by NEPA). In assessing cultural and aesthetic environmental impacts, impacts that uniquely affect geographically dislocated or dispersed minority or low-income populations or American Indian tribes are considered. (CEQ, 1997)

The following environmental justice analysis assesses whether issuing a license for the proposed Dewey-Burdock ISR facility might cause disproportionately high and adverse human health or environmental effects on minority and low-income populations. In assessing the effects, the following CEQ (1997) definitions of minority individuals, minority populations, and low-income populations were used:

Minority individuals. Individuals who identify themselves as members of the following population groups: Hispanic or Latino, American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, or two or more races meaning individuals who identified themselves on a Census form as being a member of two or more races, for example, Hispanic and Asian.

Minority populations. Minority populations are identified when (i) the minority population of an affected area exceeds 50 percent or (ii) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.

Low-income population. Low-income populations in an affected area are identified with the annual statistical poverty thresholds from the Census Bureau's Current Population Reports, Series PB60, on Income and Poverty.

4.12.1 Analysis of Impacts

Methodology

NRC addresses environmental justice matters for license reviews through (i) identifying minority and low-income populations that may be affected by the proposed construction and operations of the proposed Dewey-Burdock ISR facility and (ii) examining any potential human health or environmental effects on these populations to determine whether these effects may be disproportionately high and adverse.

In January and February 2010, the NRC staff published an advertisement in six newspapers circulated near the proposed project area (Rapid City Journal, Edgemont Herald Tribune, Custer Chronicle, Hot Springs Star, Lakota Country Times, and the Native Sun) to inform the public and solicit comments on the proposed action. As part of information gathering, the NRC staff also contacted potentially interested Native American tribes, local authorities, and public interest groups in person, by email, and by telephone.

The 2010 Census provides race and poverty characteristics in Custer and Fall River Counties in South Dakota and Weston County in Wyoming, which are the counties potentially affected by the proposed project. For the year

2010, Table 4.12-1 shows the percentage of people living in poverty and minority populations in the United States, South Dakota and Wyoming, and in Custer, Fall River, and Weston Counties. The table also includes the census tracts and block groups in these counties. Note that poverty data from the 2010 Census are not yet available at the block group level.

Table 4.12-1. Percent Living in Poverty and Percent Minority in 2010

Geographic Unit	Percent Living in Poverty	Percent Minority
United States	13.8	36.3
South Dakota	13.7	15.3
<i>Custer County</i>	9.7	7.2
Custer County Census Tract 9651	8.0	6.6
Block Group 1	NA	7.5
Block Group 2	NA	3.9
Block Group 3	NA	3.9
Custer County Census Tract 9652	12.9	8.4
Block Group 1	NA	7.1
Block Group 2	NA	4.2
Block Group 3	NA	12.6
<i>Fall River County</i>	17.4	12.6
Fall River County Census Tract 9641	13.4	8.7
Block Group 1	NA	5.1
Block Group 2	NA	6.1
Block Group 3	NA	13.6
Fall River County Census Tract 9642	20.5	15.2
Block Group 1	NA	10.0
Block Group 2	NA	12.1
Block Group 3	NA	16.0
Wyoming	9.8	14.1
<i>Weston County</i>	7.9	6.2
Weston County Census Tract 9511	7.7	5.7
Block Group 1	NA	5.0
Block Group 2	NA	6.3
Weston County Census Tract 9513	8.1	6.6
Block Group 1	NA	6.5
Block Group 2	NA	3.4
Block Group 3	NA	7.7
Source: USCB (2012) NA = Not available		

Impact Analysis

In 2010, the populations of Custer, Fall River, and Weston Counties were 8,216, 7,094, and 7,208, respectively (USCB, 2012). In 2010, 15.3 percent of the South Dakota population and 14.1 percent of the Wyoming population was classified as minority (Table 4.12-1). The percentage of the population classified as minority in Custer, Fall River, and Weston Counties was 7.2, 12.6, and 6.2 percent, respectively, which is below the state minority population percentages. The minority population in census tracts in Custer and Fall River Counties potentially affected by the proposed Dewey-Burdock ISR Project ranged from 6.6 to 15.2 percent which is at or below the state average of 15.3. The minority population in block groups in Custer and Fall River Counties ranged from 3.9 to 16 percent. In Weston County, the minority population in the census tracts potentially

affected by the proposed project ranged from population in block groups in Weston County ranged from 3.4 to 7.7 percent.

As described in SEIS Section 3.11.1 and summarized in Table 3.11-1, the population in Fall River County fell approximately 5 percent between 2000 and 2010, in comparison to approximately 9 and 13 percent gains in Weston and Custer Counties over the same period, respectively. Weston County's population is expected to grow at a similar rate of approximately 9 percent over the next decade (WDAI, 2011). The populations of Fall River and Custer Counties are expected to remain relatively constant through 2020 (Brooks, 2008).

Demographic information on race and ethnicity in 2000 and 2010 for Custer, Fall River, and Weston Counties is provided in Table 4.12-2. Since 2000, minority populations have increased by 0.6 percent (111 persons) in Custer County, 1.9 percent (98 persons) in Fall River County, and 1.0 percent (100 persons) in Weston County. In Custer and Weston Counties, most of this increase was due to an influx of Hispanic or Latinos (72 persons in Custer County and 79 persons in Weston County). In Fall River County, the increase was due to an influx of Black or African Americans (18 persons), American Indian and Alaska Natives (24 persons), and Hispanic or Latinos (29 persons).

The U.S. population living below the poverty level was identified as 13.8 percent in 2010 (Table 4.12-1). In South Dakota and Wyoming, the populations living below the poverty level were 13.7 and 9.8 percent, respectively. The percentage of people living below the poverty level in Custer, Fall River, and Weston Counties is 9.7, 17.4, and 7.9, respectively. The percentage of people living below the poverty level within the census tracts surrounding the proposed Dewey-Burdock ISR Project ranged from 7.7 to 20.5 percent (Table 4.12-1).

As described in SEIS Section 3.11.2 and summarized in Table 3.11-3, the median household income for South Dakota and Wyoming in 2010 was \$46,369 and \$53,802, respectively. In South Dakota, 8.7 percent of families live below the federal poverty threshold (the 2012 federal poverty threshold is \$23,050 for a family of four). In Wyoming, 6.2 percent of families live below the federal poverty threshold. Custer and Weston Counties had similar median household incomes (\$46,743 and \$53,853, respectively) and a lower percentage of families living below the poverty level (4.3 percent and 5.8 percent, respectively) than the state average (see Table 3.11-3). Fall River County had a lower median household income (\$35,833) and a higher percentage of families living below the poverty level (11.4 percent) than the state average (see Table 3.11-3).

**Table 4.12-2. Demographic Profile Comparison of the 2000 and 2010
Population in Custer and Fall River Counties, South Dakota, and
Weston County, Wyoming**

Population Category	Custer County		Fall River County		Weston County	
	2000	2010	2000	2010	2000	2010
Race (Percent of Total Population, Not Hispanic or Latino)						
White	93.4	92.8	89.3	87.4	94.8	93.8
Black/African American	0.3	0.2	0.3	0.6	0.1	0.2
American Indian, Alaskan Native	3.1	2.8	6.1	6.7	1.3	1.2
Asian	0.2	0.3	0.2	0.4	0.2	0.3
Native Hawaiian, Pacific Islander	0.0	0.0	0.1	0.0	0.0	0.0
Some other race	0.4	0.0	0.3	0.0	0.9	0.0
Two or More Races	1.9	1.7	2.5	2.6	1.5	1.4
Ethnicity						
Hispanic or Latino (number of people)	110	182	130	159	137	216
Percent of total population	1.5	2.2	1.7	2.2	2.1	3.0
Minority Population (Including Hispanic or Latino Ethnicity)						
Total minority population	481	592	797	895	346	446
Percent minority	6.6	7.2	10.7	12.6	5.2	6.2
Source: USCB, 2012						

If the percentage for either minority or low-income population in block groups significantly exceeds that of the state or county percentage, environmental justice will have to be considered in greater detail (NRC, 2003a). As a general matter, NRC staff consider differences greater than 20 percentage points to be significant (NRC, 2003a, Appendix C). Additionally, if either the minority or low-income population percentage exceeds 50 percent, environmental justice will have to be considered in greater detail. The percentages of minority populations living in the affected block groups do not significantly exceed the percentage of minority populations recorded at the state and county. No significant minority populations were identified as residing near the proposed Dewey-Burdock ISR Project. Therefore, NRC staff conclude that there will be no disproportionately high or adverse impacts to minority populations from the proposed project. As noted previously, low-income data from the 2010 Census at the block group level is not yet available. However, the percentages of the population living in poverty at the census tract level do not significantly exceed the percentage of low-income populations recorded at the state or county level. In addition, the percentage of families living below the poverty level in the affected counties does not significantly exceed the percentage of families living in poverty at the state level. Therefore, NRC staff conclude that it is realistic to expect that low-income percentages for the counties at the block group level will not be an environmental justice concern.

The closest population to the proposed Dewey-Burdock ISR Project that could be impacted by environmental justice concerns is the Pine Ridge Indian Reservation located approximately 80 km [50 mi] to the east in Shannon County, South Dakota. Communities within the Pine Ridge Indian Reservation include the towns of Oglala and Pine Ridge. Based on 2010 USCB data, these towns have both minority [greater than 95 percent Native American (Oglala Sioux Tribe)] and low-income populations (USCB, 2012).

This environmental justice impact analysis evaluates the potential for disproportionately high and adverse human health and environmental effects on minority and low-income populations that could result from the proposed action. Adverse health effects are measured in terms of the risk and rate of fatal or nonfatal adverse impacts on human health. Disproportionately high and adverse human health effects occur when the risk or rate of exposure to an environmental hazard for a minority or low-income population is significant and exceeds the risk or exposure rate for the general population or for another appropriate comparison group.

Disproportionately high environmental effects refer to impacts or risk of impact on the natural or physical environment in a minority or low-income community that are significant and appreciably exceed the environmental impact on the larger community.

Disproportionately high effects may include biological, cultural, economic, or social impacts (CEQ, 1997). Some of these potential effects have been identified in the resource areas discussed in SEIS Chapter 4. For example, ground-disturbing activities during the construction phase of the proposed ISR facility could disproportionately affect cultural and historic resources important to Native American populations. On the other hand, minority and low-income populations, such as Native American tribes, are subsets of the general public residing around the proposed Dewey-Burdock ISR Project site. All populations, regardless of their status, will be exposed to the same health and environmental effects associated with construction, operations, aquifer restoration, and decommissioning activities at the Dewey-Burdock site.

4.12.2 Proposed Action (Alternative 1)

Potential impacts to minority and low-income populations due to the construction, operations, and decommissioning of the proposed ISR facility and aquifer restoration at the Dewey-Burdock site will mostly consist of environmental and socioeconomic effects (e.g., noise, dust, traffic, employment, housing, and cultural impacts). Noise and dust impacts will be short term and limited to onsite activities. Minority and low-income populations residing along site access roads could experience increased commuter vehicle traffic during shift changes. As construction and operations employment increases at the proposed project site, employment opportunities for minority and low-income populations may also increase. Increased demand for housing during peak construction could disproportionately affect low-income populations. According to the latest census information, 2,423 vacant housing units in the census tracts in Custer, Fall River, and Weston Counties will be potentially affected by the proposed project (Table 4.12-3). Based on this information and the analysis of human health and environmental impacts presented in this chapter, there will not be disproportionately high and adverse impacts to minority and low-income populations from the construction, operations, and decommissioning of the proposed ISR facility and aquifer restoration at the Dewey-Burdock site.

As described in GEIS Section 6.4, Native American tribes in the Black Hills region believe that preserving and maintaining access to sacred lands is essential to both cultural and spiritual aspects of traditional Native American societies of the northern plains. Protection of the cultural and historic resources as well as the spiritual value of the land (e.g., identification of traditional cultural properties) within the proposed Dewey-Burdock ISR Project area will be addressed through NHPA Section 106 consultation process as described in SEIS Section 4.9.1. Mitigation measures to minimize adverse impacts to cultural and historic resources will be developed in consultation with the applicant, NRC, SD SHPO, Native American tribes (Tribal government or designated THPO), and other government agencies (e.g., BLM, Archaeological Research Center). The Section 106 consultation process provides an avenue for potentially affected Native American tribes to become consulting parties with regard to heritage interests related to the proposed project site. Potential impacts to sites of religious or cultural significance to tribes will be reduced through mitigation strategies developed during Section 106 consultations.

As part of addressing environmental justice associated with license reviews, NRC also analyzed the risk of radiological exposure through the consumption patterns of special pathway receptors, including subsistence consumption of fish, native vegetation, surface waters, sediments, and local produce; absorption of contaminants in sediments through the skin; and inhalation of plant materials. The special pathway receptors analysis is important to the environmental justice analysis because consumption patterns may reflect the traditional or cultural practices of minority and low-income populations in the area.

Table 4.12-3. Housing in Custer and Fall River Counties, South Dakota, and Weston County, Wyoming, in 2010

Geographic Unit	Total Housing Units	Vacant Units
Custer County	4,628	992
Custer County Census Tract 9651	3,173	715
Custer County Census Tract 9652	1,455	277
Fall River County	4,191	919
Fall River County Census Tract 9641	1,940	649
Fall River County Census Tract 9642	2,251	270
Weston County	3,533	512
Weston County Census Tract 9511	1,584	262
Weston County Census Tract 9513	1,949	250
Source: USCB, 2012		

Subsistence Consumption of Fish and Wildlife

Executive Order 12898 (59 FR 7629) directs federal agencies, whenever practical and appropriate, to collect and analyze information on the consumption patterns of populations that rely principally on fish and wildlife for subsistence and to communicate the risks of these consumption patterns to the public. For this SEIS, NRC considered whether there were any means for minority or low-income populations to be disproportionately affected by examining impacts to traditional lifestyle special pathway receptors. Special pathways that were considered included the potential levels of contaminants in native vegetation, crops, soils and sediments, surface water, fish, and game animals on or near the proposed Dewey-Burdock site. Potential impacts to minority and low-income populations will mostly consist of radiological effects; however, radiation doses from ISR facility operations will be expected to be well below regulatory limits as described in SEIS Section 4.13. As described in GEIS Section 6.4, the land in the area of the Black Hills has historically provided sustenance to many Native American tribes by way of fishing, hunting, and plant food gathering. The results of background radiological monitoring of soils and sediments, surface water, livestock, fish, and vegetation at the proposed Dewey-Burdock Project site are described in SEIS Sections 3.12.1 and 3.6.2. In general, the results of the radiological monitoring indicate that radionuclide concentrations in soils and sediments and surface water were often elevated in abandoned open pit surface mine areas in the eastern and northeastern parts of the Burdock area. In addition, surface water samples from Beaver Creek and the Cheyenne River often exceeded EPA-regulated MCLs for radionuclides (e.g., uranium, gross alpha, Ra-226, and Pb-210) in drinking water as established in 40 CFR Part 141. In general, radionuclide concentrations in vegetation and fish were present at low concentrations and radionuclide concentrations in local livestock were at or below the lower limits of detection.

As described in SEIS Section 4.2, fencing will be installed in areas of active ISR operations such as wellfields, processing plants, and possible land application areas. This will limit hunting within the permitted boundary of the Dewey-Burdock ISR Project area. Limits on hunting will continue over the operational life of the project. However, substantial land surrounding the 4,282-ha [10,580-ac] project site will remain open to big game hunting and therefore the impacts to hunting on Native American tribes will be SMALL. The applicant's SWMP will limit adverse impacts on aquatic habitat and species within the proposed project area resulting from planned construction and operational activities (Powertech, 2009a). As discussed in SEIS Section 4.5.1.1.2, no surface water will be diverted, no process water will be discharged into aquatic habitat, and stormwater runoff will be managed through the applicant's NPDES permit. Therefore, potential impacts to aquatic species and habitats will be SMALL.

To mitigate exposure or health risks associated with contaminants reaching the food chain in potential land application areas, the applicant proposes treating liquid wastes applied to potential land application areas so that they meet NRC release limit criteria for radionuclides in 10 CFR Part 20, Appendix B (Standards for Protection Against Radiation) (Powertech, 2009a, 2011). During decommissioning of the proposed project, seeded soil will be returned to areas from which it was removed and contoured to blend with the natural terrain. At the end of decommissioning all lands will be returned to their preextraction use of livestock grazing and wildlife habitat.

Based on this information and the analysis of human health and environmental impacts presented in this SEIS, the proposed action will not have disproportionately high and adverse human health and environmental effects on Native American and other traditional lifestyle pathway receptors in the vicinity of the Dewey-Burdock project area. The impacts to Native American tribes will, for the most part, be no different than those other populations experience within the vicinity of the project area. Mitigation strategies will be developed through the ongoing Section 106 consultation for impacts to sites of religious or cultural significance to the tribes (see SEIS Section 4.9.1).

4.12.3 No-Action (Alternative 2)

Under the No-Action alternative, the ISR facility will not be constructed and operated at the proposed Dewey-Burdock ISR Project site. The relative conditions affecting minority and low-income populations in the vicinity of the proposed project site will remain unchanged. Therefore, there will be no disproportionately high or adverse impacts to minority and low-income populations from this alternative.

SEIS Section 5.12 Environmental Justice

Impacts relating to environmental justice for the proposed Dewey-Burdock ISR Project are described in detail in SEIS Section 4.12. The geographic boundary for this resource includes Custer and Fall River Counties in South Dakota, Weston County in Wyoming, and the Pine Ridge Indian Reservation in Shannon County, South Dakota. The timeframe for the analysis is 2009 to 2030 (see SEIS Section 5.1.2 for the estimated operating life of the proposed project). As described in SEIS Section 4.12.1, NRC staff determined that the percentage of minority populations living in affected block groups in the vicinity of the proposed Dewey-Burdock ISR Project site in Custer, Fall River, and Weston Counties does not significantly exceed the percentage of minority populations recorded at the state and county levels and is well below the national level. Furthermore, NRC staff determined the percentage of low-income populations living in affected census tracts in the vicinity of the proposed project site in Custer, Fall River, and Weston Counties does not significantly exceed the percentage of low-income populations recorded at the state or county level. Based on an analysis of potential impacts to minority and low-income populations described in SEIS Section 4.12.2, NRC concluded that there will be no disproportionately high or adverse impacts to minority or low-income populations residing near the proposed project area.

In GEIS Section 6.4, NRC staff identified the Native American Oglala Sioux Tribe as a minority population in the Nebraska-South Dakota-Wyoming Milling Region and the Pine Ridge Indian Reservation as a low-income population (NRC, 2009a). The Pine Ridge Indian Reservation is located in Shannon County, South Dakota, approximately 80 km [50 mi] from the proposed Dewey-Burdock ISR Project. Environmental justice impacts related to the protection of cultural and religious resources of significance to the Oglala Sioux Tribe and other potentially affected Native American tribes are being addressed through the NHPA Section 106 consultation process as described in SEIS Sections 1.7.3.5 and 4.9.1. As described in SEIS Section 4.12.1, environmental justice impacts to Native American tribes will primarily be no different than those experienced by other populations within the vicinity of the project area. Although the proposed action may potentially affect certain sites of

religious or cultural significance to the tribes, the impacts to such sites would be reduced through mitigation strategies developed during Section 106 consultations.

Because the economic base of the study area includes ranching, government, tourism, and resource extraction, low income areas are not only widely dispersed but small in size. Furthermore, it is unlikely that race and poverty characteristics in regions surrounding the proposed Dewey-Burdock ISR Project area will change significantly as a result of past, present, and reasonably foreseeable future projects discussed in Section 5.1.1. For reasonably foreseeable future actions, the extent to which there will be potential environmental impacts (e.g., visual impacts of wind turbines and transmission infrastructure associated with wind energy projects) and health and safety risks that create an environmental justice concern will depend on the precise location of low-income and minority populations in relation to specific projects. Full analysis of the potential impacts of specific projects on low-income and minority populations will be undertaken as part of site-specific environmental justice reviews of each proposed development site.

Based on available minority and low income population information and the analysis of human health and environmental impacts presented in Chapters 4 and 5, NRC staff conclude that the potential for adverse incremental impacts within the study area will be SMALL. The NRC staff also conclude that the proposed project will have a SMALL incremental impact on environmental justice populations when added to the SMALL cumulative impacts from other past, present, and reasonably foreseeable future actions.

Table 9-1. Summary of Environmental Impacts of the Proposed Action

Impact Category	Unavoidable Adverse Environmental Impacts	Irreversible and Irretrievable Commitment of Resources	Short-Term Impacts and Uses of the Environment	Long-Term Impacts and the Maintenance and Enhancement of Productivity
Environmental Justice (SEIS Section 4.12.1)	There will be no disproportionately high and adverse impacts to minority or low-income populations from the construction, operation, aquifer restoration, and decommissioning of the proposed Dewey-Burdock ISR Project. While certain Native Americans may have a heightened interest in cultural resources potentially affected by the proposed action, the	Not applicable.	Implementing the proposed action will have a SMALL impact on environmental justice. There will be no disproportionately high and adverse impacts to minority or low-income populations from the construction, operation, aquifer restoration, and decommissioning of the proposed Dewey-Burdock ISR Project.	There will be no long-term environmental justice impacts following license termination. While certain Native Americans have a heightened interest in cultural resources potentially affected by the proposed action, the impacts to Native Americans in this and other areas is not expected to be disproportionately high or adverse. To the extent there might be adverse impacts to historic

	impacts to Native Americans in this and other areas is not expected to be disproportionately high or adverse.			and cultural sites of interest to Native Americans, these impacts will be mitigated by an agreement that will formalize treatment plans during construction. If NRHP-eligible sites cannot be avoided, treatment plans will be developed. If other historic and cultural resources are encountered during the ISR lifecycle, the applicant is required by license condition to stop work. Work will not restart without authorization from the NRC, SD SHPO, and BLM.
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Response to Public Comments

E5.27 Environmental Justice

E5.27.1 Impacts to Native American Tribes

Comment:

Several commenters stated that it is of interest that the potentially dangerous and environmentally devastating uranium mine is proposed where the greatest danger would be posed to the nearby Native American population, which has little voice, resources to adequately evaluate risks, and little or no chance of any economic benefit. The commenters stated further that if long-term damage or danger exists, this population has limited access to media and few resources to adequately combat exploitation and depredation of its land and health. Another commenter stated that the Dewey-Burdock proposal raises essential questions of fairness about its siting and location, as the SEIS failed to consider alternative locations, but does consider instead the permanent burial of radioactive waste at a site held sacred by indigenous people.

Response: *The NRC is not responsible for siting potential ISR facilities or other licensed facilities. Private companies interested in uranium recovery identify locations for potential ISR facilities based on the presence of uranium orebodies. As described in SEIS Section 1.7.3.5, the NRC staff is consulting with Native American groups as part of the NEPA process and the NHPA Section 106 historical and cultural process for the proposed Dewey-Burdock ISR Project. As an independent regulatory agency, NRC is specifically exempted from the provisions of Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments." However, the NRC exercises its regulatory authority in a manner consistent with the fundamental precepts expressed in Executive*

Order 13175 and has adopted agency practices that ensure consultation and cooperation with Indian tribal governments. The NRC also complies with the NHPA Section 106 regulatory requirements in 36 CFR Part 800 regulations that require federal agencies to consult with federally recognized tribes before making a decision on a federal undertaking. To fulfill its obligation under NEPA and Section 106 of the NHPA, the NRC consults with tribal governments that have an interest in, or may be affected by NRC regulatory actions. Consultations include government-to-government meetings between tribal and NRC leadership and between tribal staffs and NRC staff; issues addressed include the ISR licensing process, the development of the SEIS, the identification and evaluation of places of religious and cultural significance to Indian tribes, and mitigation strategies to protect these sites under Section 106 of the NHPA.

The SEIS used CEQ guidance to assess whether the proposed project might cause disproportionately high and adverse human health or environmental effects on minority and low income populations, including Native American tribes (CEQ, 1997). Based on the information and the analysis of human health and environmental impacts presented in SEIS Section 4.12, NRC concludes in the SEIS that minority and low-income populations will not be subject to disproportionately high and adverse impacts from the construction, operations, and decommissioning of the proposed ISR facility and aquifer restoration at the Dewey-Burdock site. While certain Native Americans may have a heightened interest in cultural resources potentially affected by the proposed action, the impacts to Native Americans in this and other areas are not expected to be disproportionately high or adverse.

Text was added to SEIS Section 1.7.3.5 to document NHPA Section 106 consultation activities since the draft SEIS was issued in November, 2012.

Comment:

The commenter noted the Northern Cheyenne Tribe is concerned that the proposed action could have significant disproportionate impact to the tribe and its members, and urged NRC to thoroughly evaluate and mitigate potential adverse impacts. The commenter pointed out that disproportionate impacts are likely because the tribe's nearby land around Bear Butte, in Meade County, South Dakota, and the burial sites for Northern Cheyenne people killed in the January 9, 1879 "outbreak" from Fort Robinson (near Chadron, Nebraska) are within the 10,580 ac in the proposed ISR project area.

Response: *The SEIS used CEQ guidance to assess whether the proposed project might cause disproportionately high and adverse human health or environmental effects on minority and low-income populations, including Native American tribes (CEQ, 1997). Based on the information and the analysis of human health and environmental impacts presented in SEIS Section 4.12, NRC concludes in the SEIS that minority and low-income populations will not be subject to disproportionately high and adverse impacts from the construction, operations, and decommissioning of the proposed ISR facility and aquifer restoration at the Dewey-Burdock site. While certain Native Americans may have a heightened interest in cultural resources potentially affected by the proposed action, the impacts to Native Americans in this and other areas are not expected to be disproportionately high or adverse.*

With regard to potential impacts on tribal land around Bear Butte, in Meade County, South Dakota, Bear Butte is located more than 100 km [62 mi] north-northeast of the proposed project site. Because of its distance from the proposed project site, no disproportionately high or adverse impacts to Native Americans residing on tribal lands around Bear Butte are expected.

With regard to impacts on burial sites for Northern Cheyenne people killed in the 1879 “outbreak” from Fort Robinson, the NRC staff offered all interested tribes the opportunity to conduct a field survey within the proposed project boundary in order to identify properties of religious and cultural significance to them (see SEIS Section 1.7.3.5). The Northern Cheyenne Tribe was one of the seven tribes that took part in this field survey. Under the terms of the survey, the participating tribes committed to submitting reports with their findings and their recommendations for avoidance or mitigation of sites. The NRC staff considered all sites identified by the Northern Cheyenne Tribe and the other tribes that participated in the survey when the staff made its cultural resource impact determination, which is found in SEIS Section 4.9.1.

Text was added to SEIS Section 1.7.3.5 to document NHPA Section 106 consultation activities since the draft SEIS was issued in November, 2012.

Comment:

The commenter was concerned about environmental justice and the effects of the *in-situ* leach mining. The commenter noted that the Black Hills is sacred to Native Americans and its impact on them is a primary concern.

Response: *The SEIS used CEQ guidance to assess whether the proposed project might cause disproportionately high and adverse human health or environmental effects on minority and low-income populations, including Native American tribes (CEQ, 1997). Based on the information and the analysis of human health and environmental impacts presented in SEIS Section 4.12, NRC concludes in the SEIS that minority and low-income populations, including Native American tribes, will not be subject to disproportionately high and adverse impacts from the construction, operations, and decommissioning of the proposed ISR facility and aquifer restoration at the Dewey-Burdock site.*

As further discussed in SEIS Section 4.12, Native American tribes in the Black Hills region believe that preserving and maintaining access to sacred lands is essential to both cultural and spiritual aspects of traditional Native American societies of the northern plains. The identification and evaluation of places of religious and cultural significance to Native American tribes within the proposed Dewey-Burdock ISR Project area is addressed through the NHPA Section 106 consultation process (see SEIS Sections 1.7.3.5 and 4.9.1). Mitigation measures to minimize adverse impacts to cultural and historic resources are being developed in consultation with the applicant, NRC, SD SHPO, ACHP, Native American tribes (tribal government or designated THPO), and other government agencies (e.g., BLM). In general, the least intrusive mitigation measures are undertaken to protect cultural and historic resources. Native American tribes typically recommend avoidance of areas of religious and cultural significance to tribes and NRC and the applicant are committed to protecting by avoidance wherever possible.

Text was added to SEIS Section 1.7.3.5 to document NHPA Section 106 consultation activities since the draft SEIS was issued in November, 2012.

Comment:

The commenter stated that the project is proposed for an area that is of great cultural significance to a stakeholder group (Native American tribes) that has been notoriously excluded from government decisions. The commenter stated that the “SMALL” designation would not be supported by many of the people who live on nearby reservations and who were forced out of the sacred lands surrounding the proposed project. The commenter further stated that because of historical exclusion, it is ethically essential that the agency proactively engage in a more thorough discussion with affected groups, rather than relying on “comment periods.”

Response: *The NRC recognizes the importance of its obligation to consult with Indian tribes on places of religious and cultural significance to tribes. The NRC invited and considered the comments made on this topic by tribes and the public on these places; however, our efforts extended beyond receiving and considering information during the comment period. The NRC staff consulted with 23 federally-recognized tribes since the staff began review of the proposed Dewey-Burdock ISR Project license application in 2009 (see SEIS Section 1.7.3.5). The NRC staff's outreach efforts to date are discussed in SEIS Section 1.7.3.5 and SEIS Appendix A. As part of the consultation under Section 106 of the NHPA, the staff held three face-to-face meetings and three teleconferences with tribal representatives. In April – May 2013, interested tribes conducted a month long pedestrian field survey to identify and evaluate sites and assess potential impacts to sites of religious and cultural importance. The NRC staff completed its evaluation of identified sites and assesses impacts to historic and cultural resources and documented its findings at SEIS Section 4.9.1. The NRC continues to work closely with all interested tribes in the preparation of a PA to address avoidance and mitigation measures. Text was added to SEIS Section 1.7.3.5 to document NHPA Section 106 consultation activities since the draft SEIS was issued in November 2012.*